

DX News

• Serving DX'ers since 1933 •

Volume 60, No. 16 - February 8, 1993 (ISSN 0737-1659)



Inside...

- 2 .. AM Switch
- 3 .. Now and Then
- 4 .. DDXD
- 10 .. DDXA
- 11 .. Verie Signers

- 12 .. Delco AMAX Rx, RBDS Rx
- 13 .. IBOC AM/FM Digital Tests
- 14 .. IDXD
- 18 .. DXpedition Site Selection
- 20 .. Answerman
- 22 .. Musings
- 24 .. You, Me, and Them

CPC Test Calendar

Call	Freq	Date	EST Time
KAAM	1310	Feb. 8, 1993	0200-0400
WWCC	1590	Feb. 13, 1993	0000-0030
KVOX	1280	Feb. 13, 1993	0300-0310
WERK	990	Feb. 13, 1993	0400-0430
WSMI	1540	Feb. 24, 1993	0100-0110
WWJZ	640	Mar. 1, 1993	0000-?
KGWA	960	Mar. 1, 1993	0300-0400
WVCH	740	Mar. 8, 1993	0230-0330

KGWA-960, P. O. Box 960 - Enid, OK 73702 will conduct a DX test from 3:00-4:00 am EST Monday, March 1. The test will include Morse code, tones, voice ID's, and march music. The test which ran in December was conducted on standby equipment, and the engineer has asked to repeat the test for the benefit of DX'ers. Reception reports may be sent to Mr. Scott Clark (WA7UIB), Chief Engineer. Arranged by J. D. Stephens for the IRCA CPC.

WVCH-740 (Chester PA), P.O. Box A - Brookhaven, PA 19015 will conduct a DX test from 2:30-3:30 am EST Monday morning, March 8. The test will consist of special test tones and frequent ID's, and during the test the power will be dropped to 5 kW from the normal day power. Reception reports may be sent to Dave Schmidt, and during the test prepaid calls, to (215) 872-8862, are welcome. Arranged by Dave Schmidt.

WERK-990, 8510 State Road Three - Muncie, IN 47302 will conduct a special DX test Saturday morning February 13 from 4:00-4:30 am. The test will include polkas and voice and code ID's. Reports may be sent to Mr. Bill Patterson, engineer. Arranged by the National Radio Club CPC.

(Details for other tests listed above were in previous or will be listed in future DXN's.)

From the Publisher ... I hope the above CPC information is now correct. I would apologize for being brain-dead while typing up some of the incorrect information, such as listing stations as testing at high noon, but I can't remember £££-£££! *æ?

The NRC Publications Center is announcing two new, revised products available right now. Check out page seven for details.

If you'd like to plan your summer vacation around a western DX convention, IRCA will be holding its convention June 25-27 in Billings, MT. For more information, contact John C. Johnson - 979 Neptune Boulevard - Billings, MT 59105-2129. And don't forget to come back to NRC's 60th Anniversary GTG in Enfield, CT over Labor Day weekend, Sept. 3-6. I'm going to try to make both this year.

DX Alert ... Tom Bryant (nice article in *Monitoring Times*, Tom!) phoned to alert DX'ers to the presence of KTWQ-1030, Casper WY in the east. Seems that a fire at their transmitter site damaged equipment and forced them to transmit night power at 30 kW, non-directional. And a personal visit to R. Cayman revealed that the 1205 and 1555 outlets will cease transmitting sometime this summer, exact time unknown, with broadcasting to be done on FM outlets.

Welcome to these new members ... Craig Siegenthaler, Yakima, WA; and Samuel N. Ledford, Flintstone, GA.

Products ... Craig sends along a pr eliminary information release concerning the Kiwa MW Air-core loop antenna, of which company he is president. If you'd like more information, call (800) 398-1146, or write him at Kiwa Electronics - 612 South 14th Ave. - Yakima, WA 98902.

DX Time Machine

From the pages of DX News:

50 years ago ... from the Feb. 6, 1943 *DXN*: George Luther, Kerrville, TX, reported that XEG-1050 was closed down in Sept., 1942, for alleged Nazi leanings of the ownership. After reorganization with virtual U. S. ownership and just enough Mexican holdings to make it legal, XEG resumed broadcasting in Dec. 1942. In the interim, XEAW occupied the 1050 channel.

25 years ago ... from the February 3, 1968 *DXN*: After suffering a loss of rx equipment due to a fire, Bob Foxworth offered tips for cleaning equipment damaged by smoke and heat.

10 years ago ... from the February 7, 1983 *DXN*: Dave Schmidt's DDXD listed loggings from the following pirates: WMOT-640; KPRC-1616; WQTU-1617; WGUT-1630; PRN-1620; WDX-1620, and WART-1615.

AM Switch

Jerry Starr
c/o WHOT Radio
4040 Simon Road
Youngstown, OH 44512-1320

Status changes in AM stations, supplied by the FCC and listeners

CALL LETTER CHANGES

Old call:

1110 WKEG PA Washington
1260 KGIL CA San Fernando
1480 CKAN ON Newmarket

New call:

WKZV*
KOJY
CKDX

*Corrects a typo as "WKZX" two issues ago

APPLICATION FOR NEW STATION

1600 WA Blaine: 50000/5000 U4

GRANTS FOR NEW STATIONS

None

APPLICATIONS FROM EXISTING FACILITIES

680 WCAW WV Charleston: reduce daytime power to 10000 watts
730 WCPT VA Alexandria: night power to 950 watts
1270 WLAW MA Fairhaven: city of license to Fall River, MA
(new station CP not yet on the air)
1580 WTCL FL Chattahoochee: delete night operation from CP to
increase power, CP will be for 10000 D1

GRANTS TO EXISTING FACILITIES

570 WMCA NY New York: powers to 50000/30000 U3 (first of the
former regional frequency stations to receive
grant for power in excess of old 5000 watt limit)
1230 CBBF NWT Iqaluit: reduce night power to 1000 watts
1340 CFYK NWT Yellowknife: reduce night power to 2500 watts
1480 WABB AL Mobile: changes in antenna system

OTHERNESS

540 WDMV MD Pocomoke City: station has been SILENT since
1/16 which may be to facilitate the move to
Brinklow, MD which was recently granted.
600 WFST ME Caribou: station is SILENT (see 1390 WTMS below)
750 WWAX PA Olyphant: station is SILENT pending a sale
820 WSWI IN Evansville: formerly did not operate on Sundays,
station is now on 7 days a week.
960 WBEU SC Beaufort: silent station is ON THE AIR
990 KZZB TX Beaumont: silent station is ON THE AIR
1020 KRAD OK Perry: station is SILENT
1230 KPCC CO Pueblo: station was incorrectly listed as being
in CA instead of CO a few issues ago (ex-KDZA)
1260 KVSF NM Santa Fe: silent station is ON THE AIR, heard
with dual ID as "KVSF Santa Fe, KISE Espanola" but
we are unable to find any info on a KISE. Ideas?
1390 WTMS ME Presque Isle: station is SILENT (does this mean
that ALL the AM stations in the Presque Isle
market are silent?)
WLCM MI Charlotte: incorrectly shown as being in NC
instead of MI two issues ago (ex-WNNY)
1390 WDOT VT Burlington: silent station should be ON THE AIR
by the time this reaches you, was purchased by
owners of WKDR-Plattsburgh, NY whose Talk format
will move here (WKDR will change to all-news)

KIDO
AM 63
NEW TALK

1400 KYLR TX Huntsville: silent station is ON THE AIR
1480 WRDW GA Augusta: silent station is ON THE AIR
1500 WDEE MI Reed City: station is SILENT
KXVQ OK Pawhuska: station is SILENT due to a fire as we
reported earlier but the background is pretty
interesting. Seems the studios were located in an
old hotel and the fire not only destroyed all the
station equipment, it also killed a "transient" in
the hotel. The investigation into the death has
delayed KXVQ's insurance claim. The transmitter
was untouched and owner plans to build a new
studio at that site.



1510 KMOO TX Mineola: station is SILENT pending a sale

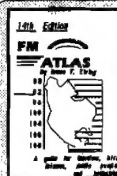
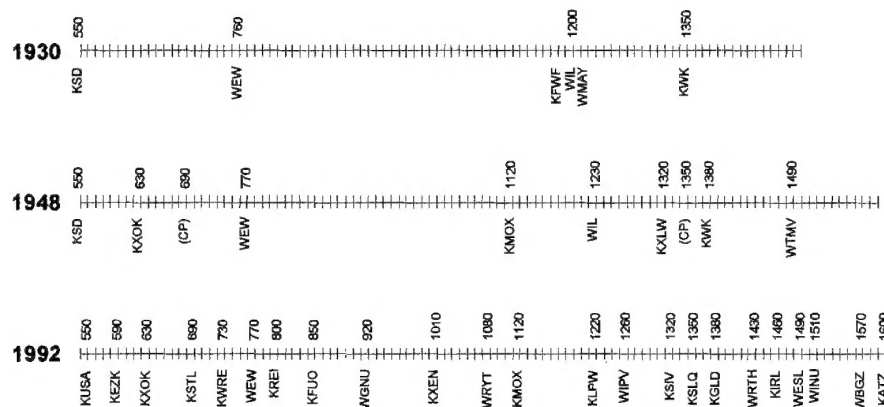
THANKS: Al Merriman, Dave Schmidt, Todd Roberts, Bruce Winkelman,
Shawn Axelrod, Wayne Heinen, Ed Krejny, Dick Truax, MSJ.

73 and Good DX, *Jerry & BKF* Jerry Starr & Buffalo K. Foonman

Now and Then John D. Bowker

Dial changes in AM markets, from 1930 to 1948 to 1992

ST. LOUIS MARKET NOTE USE OF SHARED FREQUENCIES



Bruce Elving's FM Atlas...14th Edition

The world-famous guide which has served FM DX'ers for over 20 years is now available from NRC Publications at the special price of \$12.00. NY orders, please add sales tax.

Domestic DX Digest

North: Bill Hale

495 Creekview Drive - Meridian, ID 83642-3241

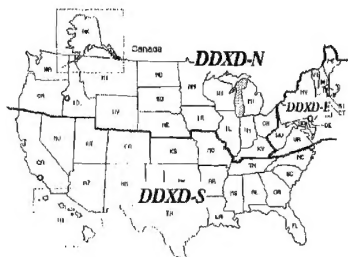
South: Duncan Shaw

3131 S. McClintock B111 - Los Angeles, CA 90007

East: Dave Braun

11 Mill Bend Acres - Wyoming, DE 19934-9523

DX Catches in the U. S. and Canada, with 24-br. ELT



DDXD North

- A nice turnout this week. If you have never reported to DDXD before (new member, old member, shy member, bold member, we'd love to hear from you and relay your DX for all to see and (maybe) envy. In any case, we're waiting . . .

SPECIAL

- 710 CHYR ON** Leamington - Contrary to report in *AM Switch*, the *FM* due to replace this and 730 facility is **not on yet**. In fact, decision allowing this facility from CRTC has **not yet come down**. AMs will be around for awhile. (REH-ON)
- 880 WCBS NY** New York - 1/3 0300 - Noted off the air until 0320. Announcement then stated *This is WCBS returning to the air after a brief period of maintenance*. Nothing heard except C&W music, presumably KRVN or CKLW, both of which aren't needed. (MS-ON)
- 1480 CKDX ON** Newmarket - 1/3 1453 - Excellent with oldies music, ID @ 1456 *Good times and great oldies - we are CKDX*. Ex: *CKAN*. No change in format, at least for now. (MS-ON) [Great CLs for DXers, hi - Ed.]

UNIDs and UNID HELP

- 1240 UNID 77** 1/7 1733-1804 - Poor → good (on peaks) with CNN Headline News & weather. No mention of city. Non-ID as *Newsradio 1240 CNN*. At 1800 I heard an ID sounding like *Newsradio 1240 W??, Chicago's 24-hour news station*. Doesn't make sense to me as Log shows 3 Chicago stations sharing time on 1240, so how could anyone be 24 hours? (MS-ON)



DX AND EQUIPMENT TESTS

- 540 KNAK UT** Delta - 1/4 0200 - Poor signal. After review of the tape, CIDs were noted at 0206 and 0216. New station. (SA-MB)
- 570 WMAM WI** Marinette - 12/7 0235 - Poor under WKBN. CIDs only. Unneeded. (REH-ON)
- 920 KDES CA** Palm Springs - 1/11 0415-0430 - Not heard. Had several unIDs, believed to be KQLO/KVEC/etc. (JW-OR) . . . Not heard. Too much CFWY. (SA-MB) . . . Not heard. (REH-ON)
- 950 KXTQ TX** Lubbock - 1/18 0230-0300 - Not heard as WWJ was very dominant. (JL-OH) . . . Not heard. Possible KAHJ way under with C&W, and faint *Kay-High* slogan? and weak KJR with sports. (RO-AK) . . . Not heard. Just KPRC-TX in local WWJ-MI null. (REH-ON)
- KJR WA** Seattle - 12/7 - Not heard. (REH-ON)
- 960 KGWA OK** Enid - 12/21 0103 - Poor with partial CID. (REH-ON)
- 1020 WNTK NH** New London - 1/4 0300-0330 - Poor. After going over the tape and comparing it to *Wayne McRae's*, CIDs found at 0325. His tape clearer than mine. NH #1 for state #45. (SA-MB)

- 1020 WNTK NH** New London - 1/4 0320-0329 - Poor to fair on test with *WNTK* repeated in slow speed code. Also copied *Newport* in code. Female with VID at 0329 & off air. New. (RR-ON)
- WRIX SC** Homeland Park - 12/7 0210 - XLNT with CIDs, VIDs, music and phone number. Unneeded. (REH-ON)
- 1150 KCKY AZ** Coolidge - 1/11 - KSAL/CKX/KCUV only. No test heard. (SA-MB) [I searched and searched for this one . . . but couldn't find an announcement in *DX News*. You sure they were scheduled for a test? - Ed.]
- KNED OK** McAlester - 12/21 0200 - Fair with VID, address and CID. (REH-ON)
- 1280 KEAN TX** Abilene - 1/4 0348 - Poor with TT and CID. (REH-ON)
- 1390 WMCT TN** Mountain City - 1/7 0007 - On top with 1000 Hz TT and lotsa VIDs on regular f/c (1st Thursday 0000-0015). (REH-ON)
- 1420 WOC IA** Davenport - 1/18 0215-0230 - CIDs at 0215 and 0220 barely making it through the hash including WHK and CJMT in FF. 1 kHz TTs heard at end of test. (JL-OH)
- WOC IA** Davenport - 1/18 0215 - Only CIDs in WHK-OH null. Unneeded. (REH-ON)
- WOC IA** Davenport - 1/18 - Not heard. Not even KCCN heard. (RO-AK)
- 1480 WKGF FL** Arcadia - 12/28 - Not heard. (REH-ON)

TIS & OTHER STUFF

- 1610 TIS WI** Kenosha - 1/3 0250-0256 - Poor to fair with continuous tape loop. Man reading Wisconsin special events. Mention Junior Curling Championships in Wausau. Gave several 1-800- numbers. New. (RR-ON)

MIDNIGHT TO 0800 HOURS ELT

- 640 WWJZ NJ** Mount Holly - 1/16 0715 - XLNT at power up with NOS and 640 *WJZ* non-ID. Into weather . . . *for the Delaware Valley, Southern New Jersey and greater Philadelphia*. (REH-ON)
- 1210 KOKK SD** Huron - 1/14 0651 - Good at times with *Tradio* promo and C&W music. Over WOGL. 1st-Timer. Strong for 900 watts. (DLH-IN)
- 1300 WLIR NY** Spring Valley - 1/16 0653 - Fair with call ID: *AM 1300 WLIR, The Music of Your Life* and promo for *Cradle Call* (birth announcements). Into *Mona Lisa* by Nat Cole. (REH-ON)
- 1330 KVOL LA** Lafayette - 1/8 0043 - Fair over others with UC music on *KVOL FM & AM*. (JJR-WI)
- 1490 WDLG NY** Port Jervis - 1/9 0125-0130 - Fair with *1490 WDLG & More music ahead on WDLG* at 0125 → C&W music by male singer from 0125-0128. ID at 0130. (RR-ON)

0800 TO 1600 HOURS ELT

- 650 KYAK AK** Anchorage - 1/15 1012-1035 - Poor to fair with C&W music. ID at 1030 with local weather, road report, traffic advisory concerning an accident. KSTE partially nulled. At one time the easiest Alaskan - now rare. (JW-OR)
- 660 WMIC MI** Sandusky - 1/2 0900-0930 - Fair daytime groundwave in between CHOG-640 and CFTR-680 slop with ABC news, ID as *Country Classics AM 66 WMIC*. C&W music, ads for *Sandusky Vision Center* and *Grant Chev-Olds-Buick-GMC*. (MS-ON)
- 920 WIRD NY** Lake Placid - 12/31 1556 - Fair with promo for *The best New Year's party Lake Placid has ever seen with the Adirondack Radio Good Guys*, PSA for MedicAlert program, a local restaurant ad, *Adirondack Radio Weatherline* promo + other station promos, slogan as *Adirondack Radio WIRD/WLPW*. (MS-ON1)
- 990 KRMO MO** Monett - 1/6 0859-0901 - Obits, legal ID, ABC News. Poor signal. Report sent. (BM-SD)
- 1240 KGY WA** Olympia - 1/15 1100 - Poor with ID, news. KFLY nulled. First time heard this location. (JW-OR)

1600 TO 2400 HOURS ELT

- 550 KUSA MO St. Louis - 1/9 2320 - Fair with C&W music, *Classic Country 55 KUSA* ID. Over/under KFYZ. (SA-MB)
- 660 WXIC OH Waverly - 1/17 1722 - Good over phased WFAN with local preacher and gospel singing program to 1731 full-data sign-off by owner: *AM 660, Ohio's Clear Channel Gospel Giant*. (★)
- 670 WWFE FL Miami - 1/16 1800 - Quite loud atop WMAQ, even without loop, in SS with brief accented EE ID. (★)
- 750 KJEL MO Lebanon - 1/16 1809 - With BKB game, cluster of local ads at 1812. (★)
- 790 WWKY KY Louisville - 1/1 1732 - Fair in CIGM null, fighting WSGW with ID as *AM 790 WWKY*. Local weather → Talknet. (MS-ON)
- WTAR VA Norfolk - 1/4 2159 - Fair with end of a basketball game from the Sun Dome in Tampa, list of sponsors including *Budweiser* beer and *FarmFresh(?)* groceries. *WTAR 790* ID. (MS-ON)
- 840 CHUR ON North Bay - 1/10 2340-2359 - Good with continuous oldies - no talk. ID at 2359 *CHUR Oldies 840*. (RR-ON)
- 930 WTKZ WV Huntington - 1/11 1759 - With promo over WAUR → CBS News. Heard years ago as WSAZ. (JJR-WI)
- 940 KIXZ TX Amarillo - 1/10 1845 - Good with *Magic 940 KIXZ* ID → NOS music. Alone on frequency. (SA-MB)
- 950 WQBE WV Charleston - 1/4 1930 - Fair with *We now pause for station identification . . . WQBE Radio 95 Charleston, West Virginia*, various ads, promo for WQBE employee of the week contest - phone 744-2291. (MS-ON)
- 1000 KXRB SD Sioux Falls - 1/10 1835 - Good with *Country One-Thousand* and *KXRB* IDs. C&W music. In CBW splatter. (SA-MB)
- 1080 KNDK ND Langdon - 1/9 1900 - Strong with *KNDK* ID → *News Center 8 News* via WDAZ Channel 8 Devil's Lake. Possibly no longer D1 as well after LSS. (SA-MB)
- 1160 WSKW ME Skowhegan - 1/8 2118-2136 - Good with old standards (*Robert Goulet*, *Johnny Mathis*, etc). IDs as *AM 1160 is WSKW*. Local ads including for Bangor, ME. Over WJJD. New. (RR-ON)
- 1310 KOKX IA Keokuk - 1/11 1820 - Fair with promo for Larry King show on *1310 KOKX*. In WIBA null. Oldies format. New. (JJR-WI)
- 1350 WXCL IL Peoria - 1/9 1820 - Good with C&W music and *WXCL & Peoria's Country* IDs. (SA-MB)
- 1390 KGER CA Long Beach - 1/20 1957-2003 - Poor, out of one preacher program into another, sandwiched around a traffic report with a mention of I-405 by a female and an ID at 2000. [Ed.-ID]
- 1410 KTCS AR Fort Smith - 1/12 1821-1823 - Contest promo for *Country Lovin'* *KTCS* followed by auto dealer ad. Poor signal, report sent. (BM-SD)
- WTIM IL Taylorville - 1/13 1806-1809 - Bank One ad, TC . . . at *News-Talk 1410 WTIM*. Local news program introduction, 2 more ads, local news. Fair signal, report sent. (BM-SD)
- 1420 KXOW AR Hot Springs - 1/13 1858-1901 - ARN News, weather, legal ID for *Stardust 1420*, Satellite News Network newscast. Good signal, report sent. (BM-SD)
- 1490 CHVR2 ON Arnprior - 12/30 1659 - Fair with AC music & *CHVR Ottawa Valley News*. (MS-ON1)
- 1500 KCLF LA New Roads - 1/5 1800-1803 - PSA and local ads into unidentified tune. Poor signal, but no KSTP. Report sent. (BM-SD)
- 1580 WZZJ MS Pascagoula - 1/5 1800 - Fair, burying CBJ with ID as *We're AM 1580 WZZJ, Pascagoula-Moss Point and the greater Mississippi Gulf Coast*. First heard in 1979, several call letter incarnations ago, as WPMP. (MS-ON)
- WLIJ TN Shelbyville - 1/6 1858 - Fair with detailed sign-off annct. (MS-ON)
- 1600 WTZQ NC Hendersonville - 1/7 2020-2033 - Fair with BBD music, ID as *Big bands and big sounds on WTZQ*. Ads for Asheville & Hendersonville. (RR-ON)

REPORTERS

- DLH-IN Dave Hascall Pendleton, IN; DXing on Ft. Benjamin Harrison, IN with Delco ETR
- SA-MB Shawn Axelrod Winnipeg, MB; ICOM R-70 w/PLAM board & 0.5, 2.4 & 4 kHz filter + 4' box loop or 100' lw
- BM-SD Bill Moser Pierre, SD; GE Superadio II barefoot
- JJR-WI John Rieger South Milwaukee, WI; Panasonic RF-2200
- JW-OR Jack Woods Waldport, OR; Sony ICF-2010 + Martens Loop
- MS-ON Morris Sorensen Scarborough, ON; Hammarlund HQ-150 w/McKay-Dymek DA-9 ferrite loop or Panasonic RF-B65 "barefoot"; or MS-ON1 Kemptville, ON; RF-B65 "barefoot"
- RR-ON Robert Ross, VE3 JFC London, ON; Collins 651S-1 or Hammarlund SP-600 + LWs/dipoles or 2½' box loop
- REH-ON Charles Reh Leamington, ON; R-390A + Sanserino Loop + TR-3000 open reel tape deck
- JL-OH Jeffrey Less Toledo, OH; Panasonic RF-5000A
- RO-AK Rod O'Connor Kodiak, AK;
- ★ Jerry Starr Hubbard, OH; HQ180A + 4' loop, 2 phased inverted L antennas (each 40' high and 70' long)
- MB-ON Mike Brooker Toronto, ON; Panasonic RF-2200, Sony ICF-7600D
- Ed.-ID Editor Meridian, ID; ICF-2010 barefooted

ABBREVIATIONS AND SPECIAL SYMBOLS USED IN DDXD - North

| | :parallel with or to →:into :00:on the hour AC:Adult contemporary AP:Associated Press
 BBD:big band BRN:Business Radio Net C&W:country & western CHR:contemporary hit radio
 CID:code ID CL:call letter ContChr:contemporary Christian EZL:easy listening EE:English
 FF:French GOS:gospel IRN:Interstate Radio Net LSR:local sunrise LSS:local sunset
 NBA:National Basketball Assn NHL:National Hockey League NFL:National Football League
 NPR:National Public Radio OC:open carrier POL: political PSRA:pre-sunrise authority
 PSSA:post-sunset authority QRM:man-made interference QRN:natural interference QTH:location
 REL:religious ROK:rock 'n' roll RS:regular schedule \$.stereo SID:singing ID SRS:sunrise skip
 SS:Spanish SSB:Star Spangled Banner SSS:sunset skip TC:time check TT:test tones UC:urban
 contemporary UPI:United Press International

Need to renew? Expired? The mailing label will tell you.

73. Bill

Official National Radio Club Stationery
 Professionally-printed with a new design ... just what you need for those verie requests, or for any correspondence. Sold in 100-sheet packs for \$5.00. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.



AM Station Map Book, 2nd ed.

\$8.00, postpaid.

Edited by DDXD editor Bill Hale, this book is a companion to the AM Radio Log. Now easier to read than ever, the 170-page book is three-hole punched for a ring binder. Data is accurate as of 2-1-93, and updates of individual pages will be available at a nominal cost when a sufficient number of changes have occurred. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.

DDXD-East

NEWS AND VIEWS

Laurence Kearley is requesting information on purchasing a Radio West loop in Canada or the U.S. He says the address he has for them in California is no longer good.

Mike Hardester checks in with some info on his listening and research in NC regarding Jeff Kitz's UNID in the 1/18 DX News. See the end of the column for his report.

Ed Urzi mentions that he received his western-most domestic heard and verified in the form of the KNZZ DX test. He also received a verie from WWOK, and their account executive John Story said "We've had some trouble lately with our telemetry system and may have been on high power (5000 watts) when you heard us. The problem has been fixed (we hope)."

Hope everyone is having a profitable new year...

SPECIAL

- 540 WDMV** MD Pocomoke City - 1/18 1305 Usual daytimer not noted, only WLIX daytime and CJSB nighttime, also not heard on 1/23. I will be going through this area sometime in February and will check for sure then. (DB-DE)
- 1170 WHXT** MA Orleans - 1/10 0731 ID as "You're tuned to oldies 104" then into "Mr. Postman" and fade under a preacher, in and out for a while. As only parallel listed in log was WHXT and it was listed as silent, I called the number listed and 'lo and behold the woman answered "Oldies 104" and verified that it's them and that they're simulcasting 104.7, WKPE-FM. (LK-ON)
- 1560 WQEW** NY New York - 1/18 0248 Noted on with NOS format, no longer a SP MM? (DB-DE)
- 1580 WDAB** SC Travellers Rest - 1/5 1749 GOS music, then "This is WDAB, your #1 Gospel station" at 1735, then more GOS in/out to 1745 sign-off announcement "WDAB now leaves the air...WDAB is owned by Piedmont Broadcasting..." then music to 1749 cut, ex-WBBR. (RE-PA)
- 1600 WKEN** DE Dover - 1/18 Noted on all night, and on other checks during week, is now 24 hours. (DB-DE)

DX TESTS

- 950 KXTQ** TX Lubbock - 1/18 0230+ Not noted, only WPEN and UNID talk. (DB-DE)
- 1020 WNTK** NH Newport - 1/4 0300-0330 Excellent. All CID test with VIDs only at beginning and end of test. (EU-NY)
- 1420 WOC** IA Davenport - 1/18 0215-0230 Not noted, although possibly some very high pitched code at 0217, but too much WDOV slop, UNID oldies and UNID talk. (DB-DE)

UNID AND UNID HELP

- 1110 UNID** 1/9 1645 - The Redskins and 49ers playoff games with Washington and Maryland ads, the "Bell Atlantic Scoreboard," and only ID as "WTEM, Washington Redskins radio network, Maryland." As WTEM is on 570 who was this? Could it have been my usual WBT? Strong and clear with fade in the null of a very strong WNNW. (LK-ON) (I believe it was WBT - db)
- 1250 UNID** 1/23 0719 - Weather forecast which was almost identical to that heard on WBZ and for most of the east coast, giveaway for tickets to the Ice Capades, phone number sounded like 267-9735, NOS type music. Faded to WTAE and UNID CW(probably WDVA) before anymore was heard. (DB-DE)
- 1450 UNID** 1/15 0650-0655 - Program including Christian music and typical chatter. Definitely not GOS and not either southern nor appalachian accents. Over/under WTBO, WFTR. Nothing in log looks reasonable. A format change or an isolated program? (RE-PA)
- 1580 UNID** 1/5 1745 - Over/under the UNID below with 2-3 consecutive Sinatra records to 1745 when lost. Over/under WDAB also. (RE-PA)
- 1580 UNID** 1/5 1759 - Inviting phone calls at 781-1193 and ???-1193 (definitely different exchange). No such phone numbers listed in log. (RE-PA)

0000 to 0800 ELT

- 1150 WGBR** NC Goldsboro - 1/2 0613 Surfaced just above the noise with calls and temperature check. Again on 1/5 with Hornets basketball promo. (EU-NY)
- 1240 WJTN** NY Jamestown - 1/18 0154 Ads with mention of Jamestown area, ID, promo for contest with prize of free tax preparation. (DB-DE)

- 1400 WILI** CT Willimantic - 1/14 0636 News, then ad for Chambers Shoe Store "on Main Street in Willimantic." (RE-PA)
- 1450 WTSB** VT Brattleboro - 1/14 0650 Pounding in with promo for a special "at 10 o'clock this morning right here on WTSB, Brattleboro." (RE-PA)
- 1460 WPNX** AL Phenix City - 1/23 0708 Tuned in to hear "...in a little bit on WP..X, good morning," into OLD music. Faded before song was over. (DB-DE)
- 1520 KACY** LA Lafayette - 1/18 0300 NOS/EZL type music with very few breaks with WWKB off, SNN news on the hour, listened to this off and on from 0059 until 0300 to finally get an ID. (DB-DE)
- 1520 WWKB** NY Buffalo - 1/18 0059 Noted off this MM. (DB-DE)

0800 to 1600 ELT

- 950 WROL** MA Boston - 1/9 1559 Up briefly with Boston weather forecast and call ID on hour, news and fade. (LK-ON)
- 1590 WARV** RI Warwick - 1/10 1548 Religious discussion show then ad for "101 Questions Children ask about God." ID on hour as "1590 WARV." Strong with QRM. (LK-ON)

1600 TO 2400 ELT

- 630 WMAL** DC Washington - 1/1 1619 Poor with Paul McCartney tune, MD lottery numbers and 5 day weather forecast. (EU-NY)
- 720 WRZN** FL Hernando - 1/11 1853-1858 Alone and dominating with "Where the music is as beautiful as the Florida sunset, you're tuned to Sunshine 720, WRZN." Was encouraged to go after this guy after reading reports from other northeast DXers. Seems to get out pretty well. (EU-NY)
- 790 WLKW** RI Providence - 1/10 1644 Song "I Know I'll Never Love This Way Again" and other soft rock and instrumentals, local ads and ID as "WLKW Providence." In null of WTNV. (LK-ON)
- 850 WYLF** NY Penn Yan - 1/18 1653 Poor with tax tips with ad for firm in Penn Yan, ID, ad for Canandaigua National Bank and Trust Company, "Great moments in time" on WYLF-AM. (DB-DE)
- 880 WMEQ** WI Menomonie - 1/10 1652 A CW song then "Having a birthday? Call Jay ?? in the morning and he'll tell everybody on WMEQ" into more CW. Clear and steady in null of WCBS. (LK-ON)
- 900 WMVU** NH Nashua - 1/4 1627-1635 Good on peaks with call-in talk show (gave phone number as in log). Many "News-talk 900" mentions. (EU-NY)
- CKDH** NS Amherst - 1/8 1728 A time check as 6:30 p.m., song "I'll Always Love You," then the fifth caller won two free tickets to a local movie theater "compliments of AM 900, CKDH." Strong as a local (at 1000 watts!) with QRM. (LK-ON)
- 970 WJMX** SC Florence - 12/31 1750 Good on peaks over WWDJ with Barry Farber Show. Faded quickly with no calls, but not before an ad for a Ford dealer on "Highway 22 and I-95 in Florence." (EU-NY)
- 1050 WSEN** NY Baldwinsville - 1/18 1644 Alone on frequency with OLD music, weather forecast including ID into more OLD. (DB-DE)
- 1070 WFLI** TN Lookout Mountain - 12/31 1718 Almost local strength signal with "The Word for the (South?), WFLI Lookout Mountain-Chattanooga" into "Sunshine Hour" religious program. (EU-NY)
- 1080 WEEP** PA Pittsburgh - 1/9 1638 CW song "I Like Beer" then "it's 4:40 on WEEP" and into a blues song. Tons of QRM in null of usual pest WTIC. (LK-ON)
- 1110 WMMX** OH Fairborn - 1/9 1659 Up from nowhere in the middle of the 49ers-Redskins game with an ad for an Ohio Christian businessman's get-together and a call ID on the hour, then faded back to the game just in time to miss the ID on the UNID above! It's amazing what 1100 watts can do to mess up an ID. (LK-ON)
- 1230 WCOL** OH Columbus - 12/29 2000 With cold remedy ad, Sears ad, local pharmacy ad, then "1230, your 24-hour source for news, WCOL" into news 2000. Then into Larry King 2005. (RE-PA)
- 1240 WWCO** CT Waterbury - 12/29 2040-50 Presumed the one here with Huskies basketball (U. of CT) over/under WAGO. (RE-PA)
- WVOS** NY Liberty - 12/29 2058-2100 With Ai news, then "1240 AM, WVOS," then gone. (RE-PA)
- 1270 WHLD** NY Niagara Falls - 1/11 1759 Nice clear "WHLD, Niagara Falls, New York" ID on the hour. Someone had a BBC report leading up to 5:00 p.m. Might have been them also, but log says NOS. (EU-NY)

	WLİK	TN Newport - 1/11 1753 Good briefly with end of CNN Headline Sports and promo: "...High School basketball at its very best right here on WLİK." (EU-NY)
1290	WJBR	DE Wilmington - 1/11 1714 Good with "WJBR Traffic center" report and singing ID into music by Lionel Ritchie. (EU-NY)
1380	WRBQ	FL Saint Petersburg - 1/18 1720 Good over all with ad for Florida lottery, thoroughbred racing in Tampa Bay, psa for Pinellas County, "AM 1380, the hits you've been waiting for." (DB-DE)
1400	WBATt	IN Marion - 1/5 2010 Tentatively the one here with ID, pro and college basketball scores, pro hockey scores in pause (halftime?) in UNID basketball game. (RE-PA)
1450	WOL	DC Washington - 1/15 1807 With sports phone-in program, many IDs. (RE-PA)
1580	WKIG	GA Glennville - 1/5 1745 Heard weak with sign-off under WDAB. (RE-PA)

NC EXTRA

Mike Hardester reports that the following was noted in 940 at his QTH in Jacksonville, NC while trying to help with Jeff Kitz's UNID Hornets basketball. This listening was done on 1/19 between 1934 and 2005.

- WKGM-VA believed to be the Gospel station with canned programs, ID sounded like "...here on KGM" (live announcement - didn't hear a "W" if announced)(they usually don't - db) and mention of a restaurant "serving Smithfield, Laughlin and Newport News." Poor with heavy fading.
- CBM-PQ presumed with CBC programming and CBC promos. Poor with heavy fading.
- Radio Reloj - Cuba with Spanish and CW "RR" IDs. Getting stronger throughout the period.
- WMAZ-GA with sports talk and ID across hour "This is central Georgia's (talk?)...AM 9-40, WMAZ in Macon. A Multimedia station." Into CBS news.

Mike also then sends along some info on the NC cities on 940:

- WKYK in Burnsville (#1) is 350+/- miles from his QTH (east/northeast)
 (#2) is 190+/- miles from his QTH..."yes, this state has a "few" "cities/towns"
 with the same name and in different counties. I suspect, however, that #1 is the
 city in question...#2 is (literally) in the sticks!"
- WLNC in Laurinburg is 140+/- miles from his QTH (to the south)

Mike says he will try to check on a night when the Hornets are playing to see if he can hear the game and an ID. Thanks for your help, Mike.

REPORTERS

RE-PA Russ Edmunds, Blue Bell, PA: Nissan Auto radio & whip
MH-NC Mike Hardester, Jacksonville, NC: ICOM R-70, Radio West 22" ferrite loop
LK-ON Laurence Kearley, Orleans, ON: Sony ICF-SW1, Palomar Loop or Select-a-tenna
EU-NY Ed Urzi, Centereach, NY: R-5000, Palomar Loop or LW
DB-DE Dave Braun, Wyoming, DE: R-2000, Palomar Loop

AM640
K · F · I
KOST
103.5FM

Domestic DX Achievements

Donald Erickson
6059 Essex Street
Riverside, CA 92504-1599

Domestic DX totals listed periodically in different categories

DX	UP	Name, location	TDH	SH	PH	TOT	ST	PT	TDV	SV	PV
76	92	Kermit Geary, eastern PA	5575	50+	10	2487	48+	9	5161	50+	7
75	92	Paul Swearingen, e KS	585	43+	6	585	40+	5	1	1	
30	90	Frank Wheeler, nw PA	2507	50+	9	232	34+	3	1708	50+	9
60	93	Andy Rugg, Montreal & sc Ont.	1498	47+	10	144	27+	7	1467	47+	10
60	93	Andy Rugg, Montreal, PQ	1330	47+	10	144	27+	7	1303	47+	10
52	92	Ron Musco, vic Hartford, CT	1274	46+	9Y	105	28	3	1188	46+	5
72	92	Mike Sanburn, Bellflower, CA	22	45	6	33	10	1	23	47+	9
61	92	Ray Arzuff, Boston, MA	1244	47+	9				1050	47+	5
61	93	Donald Erickson, Riverside, CA	508	36	6				247	31	5
66	92	Ken Onyschuk, Homewood, IL	972	43+E	6				16	13	
70	92	Stephen Francis, nr Knoxville	2475	46+	7						
62	90	Marc DeLorenzo, eastern MA	1124	45+	9						
82	92	Bob Harrison, northeastern NJ	823	35+	7				570	35+	7
82	92	Thomas White, nr Washington, DC	978	35+	7				243	38+	7
79	92	Bruce Winkelman, Tulsa, OK	284	30	2						
90	92	Bob Gilfert, Virginia Beach, VA		27+	5				51	21	4
85	92	Shawn M. Axelrod, southern Man.	1388	44+	9						

Verification Signers

Signatures and other information received upon request

Wayne Heinen

4131 S. Andes Way

Aurora, CO 80013-3831

Freq.	Call	Verie Signer	Contributer				
740	KATKlm	Steve Swayze GM	MS	1280	KPRVlb	LeRoy Billy	MH
760	WVNEl	Lincoln W. Hubbard CE	HH	1300	WNAmlz	Patrick Berger Cop	DT
790	WMRZl	John E. Morris CE	DT	1300	KGLOl	Thomas Crowley Cop	MH
790	WSGWqmbz	Cliff Graff CE	MB	1300	WIMGfm	U/U	ERC
790	WTARlb	John Zavin E	DT	1330	XEPpu	Aida M. de Otanez	OW
810	WQIZrmb	U/U	MB	1330	KUPLlb	John Wilson ACE	MS
810	WVNElbzh	Lincoln W. Hubbard CE	MB	1340	WRCap	G. Moate E	ERC
840	WBHYf	Tonny Hodge TD	WH	1400	WMSAl	Victor Perry M	DT
860	WDMGq	U/U	MH	1450	CHVRl	Al Gutz CE	DT
890	WLSl	Warren Shulz CE	MAH	1450	KNOTlb	Paul Hurt PD	MS
900	CJWlm	Cliff Smedley CE	MS	1450	KOZZlm	javk C. Parker CE	MS
900	WMVUlm	Vincent P. Servello P/GM	ERC	1450	KSGLtbz	E. Morgan Skinner Jr. GM	MS/OW
920	CJCJl	Gerrits S. Frictorie AE	DT	1450	WGNS	Bart Walker CE	DT
920	WAFSlbzh	Robert D. Lipscomb CE	MB	1470	WMGPf	Virginia Vanderwalker TrfM	DT
920	WBAAlbz	David Bunte	MB	1480	KRKJl	Gary Hartley ACop	WH
940	WCSWlm	Randy McKibben Nx/D	MB	1530	WKGfLbh	Quick Coddington CE	RT
940	WINZl	James E. Leifer CE	MB	1540	WCEGl	Steven J. Callahan	ERC
960	WSBTlm	Chris Thornton CE	DT	1550	WSMlqhb	Brian Talley CE	RT/OW
970	WFLAl	Wilson Welch CE	OW	1550	KKHllr	U/U	MS
970	XEJpub	Aida M. de Otanez	OW	1550	WBSClb	Ken Harmon GM	RT
980	WKLYl	Brian Hicks GM	DT	1550	WMDHlmbz	Tim George Sx/D	RT
990	WCAZlb	Chuck Porten Cop	ERC	1590	WNTNl	Leo V. Sullivan Jr CE	DT
1010	WERQl	Lang Sturgeon CE	HH	1611	KELPl	Dwight D. Williams PD	WH
1020	WKZElmu	Stan Gurell P	ERC		Vaticanqf	U/U	HH
1030	KTWOq	U/U	MH	Contributors			
1030	WUFLbz	Steve Wright M	MB	RT	Robert Tiara		NC
1060	WBIVlm	Robert L. Tarpin M	ERC	ERC	Ernest R. Cooper		MA
1100	KKLLb	Don Stubblefield O/GM	WH	JM	Jim Mariani		CO
1100	KNZlmc	Dwight C. Morgan CE	MS/RT	MS	Mike Sanburn		CA
1130	CKWXqb	Sandra Gilmore ExA	MS	MAH	Mark Humenyk		ON
1150	KNEDb	Lee Anderson PD	RT	DT	Don Trelford	jamaica	
1160	WACY P	D.Day P	DT	MB	Mike Brooker		ON
1160	WMVlm	John J. Farina P	ERC	MH	Mike Hawk		NE
1210	WOGllq	Sam A Virgilio TSu	ERC	HH	Hank Holbrook		MD
1210	WOGlq	U/U	RT	EU	Ed Urzi		NY
1240	WHVNIzb	Scott Scarborough PD	DT	WH	Wayne Heinen		CO
1280	KEANlb	James Cameron CE	MH	OW	John Wilkins		CO
1280	KJAXlm	Scott Thomas PD	MS	CPC	NRC CPC		

Team Effort ...

That's what makes the NRC so great! And all information, contributions, and editing for *DX News*, *DX Audio Service*, and all publications is done by unpaid volunteers as part of a team. Perhaps you have a little time to give to your club ... if so, please write to Ken Chatterton - P. O. Box 164 - Mannsville, NY 13661-0164, and let him know what talents and time you can offer to the club. Typists are almost always needed, as is updates to the *NRC AM Radio Log*. Why not write to Ken today?

From NRC's DX Audio Service ...

"After Dark #3"

Four C-90 tapes in a holder now available for only \$9.50 postpaid. Listen to interviews with Jonathan Marks, Bruce Elving, and with Fred Vobbe answering your questions ... and features including profiles of WOJD-FM, the Kids format, and Pete Kemp's "Radio Roundup" ... and more! "After Dark #2" is also still available at the same price. Order from NRC Publications - Box 164 - Mannsville, NY 13661. NY orders, please add sales tax.

It just sounds better: GM's new Delco AMAX radio

The only radios to meet the new AMAX ("AM MAXimum") reception standards set forth by the NAB's AM Improvement Committee. Last month, we got a chance to spend another week with this fine radio, and we continue to be amazed at its performance.

This new Delco is at least a full magnitude better than any AM we've heard up to now including the AM stereo units which have been available for several years in some cars from GM, Ford, Chrysler, Toyota, Nissan and Acura.

"Dynamic signal processing" attacks AM interference

Its frequency response runs out to 6.5 kHz, about as wide as will be practical to include in any mass-produced AM radio.

The new Delco has "smart" circuits which constantly monitor reception conditions and the quality of the incoming signal. The radio adjusts itself for the best possible sound under those circumstances. Operation of these circuits is completely "hands-off": the radio makes all the adjustments by itself. Delco calls it "dynamic signal processing."

If the radio encounters interference from a strong station on an adjacent channel, a circuit reduces the frequency bandwidth to make the noise less intrusive. If you're listening to an AM stereo station, and the stereo quality drops off as you drive further from the station, the radio "blends" the two stereo channels to make reception less noisy. If you're driving under power lines, the radio's new noise blanker circuits cut the buzzing to a minimum.

What's most amazing of all is that the processing circuitry is so well thought out — so "gentle" in its action, that the listener is almost completely unaware of what's going on.

Designed to deal with worst reception conditions

Delco engineer Bill Gilbert told

We'll cut right to the quick—GM/Delco's new AMAX makes almost every AM station sound much better, stereo or not. Plus, stations come in loud and clear where other AM radios are too noisy to listen to.

The new Delcos new radios are the first, and so far the only, radios to meet the new AMAX ("AM MAXimum") reception standards set forth by the NAB's AM Improvement Committee.



Cadillac Seville optional radio includes AMAX, FM, CD and cassette player.

RBR observation:

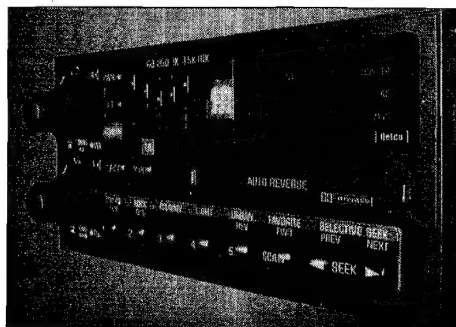
Let's hear it for GM. GM/Delco's new AMAX AM radios are the best-sounding AM radios we've ever heard. This is as good as a standard AM is going to sound, folks. If you haven't, we urge you to listen.

If you have a stake in AM radio, this is good news. Talk sounds more lifelike, ball games take on a "you're almost in the stands" kind of sound and needless to say, music sounds great.

Stereo, as good as it sounds, isn't the biggest story here. It's the way this radio deals with interference and noise, and the improved frequency response. This radio is at its best under really difficult reception situations.

How good is the reception? On a recent evening as we drove through North Carolina, we found this radio could separate distant clear channel AM stations only one notch apart on the dial. We could listen to perfect stereo on WJR Detroit (760) even in the presence of strong reception from WABC New York (770) and an even stronger signal from WSB Atlanta (750). The live broadcast of the Grand Ole Opry on WSM (650) Nashville sounded so much like FM it was hard to believe it was AM. While visiting the Louisiana Association of Broadcasters in Baton Rouge last month, we heard fabulous AM sound on Black AC station WXOK. We wonder if that great sound has anything to do with the 9.1 share they just got in the Spring book?

Many broadcasters have visited their local GM dealers to point out how good this radio sounds. Take a test drive to demonstrate how salesmen can use it as a selling point. Tell them that a lot of people who buy Buicks (or other GM lines) listen to News and Talk. One station owner, John Quinn in Elizabeth, New Jersey, took some Cadillac sales people out for a test listen. Not only were they impressed, but the dealer wound up buying a schedule on Quinn's WJDM-AM to promote the car stereos!



Broadcast data system technology will allow radios to perform a variety of "smart" tricks, including the display of station call letters and program formats.

RBR the radio was designed for real world reception circumstances. "This radio grew out of our involvement with AM stereo testing back in 1979," Gilbert said. Delco was very involved with the National Radio Systems Committee (NRSC), which got the FCC to adopt new processing standards in an effort to reduce interference. Gilbert said Delco makes frequent road trips to test new radio designs, taking eight or ten cars out, each with a different radio. "We actively look for the worst reception situations, and then design circuits to deal with the problems we find."

Gilbert says Delco also studies the kinds of audio processing stations use and designs the radios accordingly. "Almost every station we monitored was using a lot of high-end boost to compensate for the poor frequency response of average AM radios. Our high end response was so good we had to boost the lows to balance the sound," said Gilbert.

Joint effort with Motorola

GM worked closely with Motorola on development of the signal processing circuits. Motorola is now working with car manufacturers to develop similar advanced AM tuners.

Let's sound too gushy, there are downsides and limitations. Static from lightning is still a problem. Distant lightning bursts are a bit gentler, but there's very little difference with this radio when the lightning is really severe and close by. Also, noise from the most powerful transmission lines is still present, though it's softer than on other radios. Even Delco can't defy those pesky laws of physics. Also, performance in "overload" areas, very close to a station's transmitter, doesn't seem to be any better or worse than an average AM car radio.

The radio is standard in all Cadillac models, and many of GM's upscale models like the Pontiac Bonneville SSE and SSEi Grand Prix STE, Olds 98 Touring Sedan and Buick Park Avenue Ultra. It's also available in many other models. If the radio in a '92 GM car has an equalizer, it has the new AM circuitry.

Radio Catches a New Wave Technology Puts Music, Messages on the Dial

By Paul Farhi
Washington Post Staff Writer

You're driving in your car. You turn on the radio. The station is playing a Bruce Springsteen song, but you don't need a deejay to name that tune. Right there, on the radio console, a text panel reads, "Springsteen, 'Fire,' 1986."

Change stations and the message changes, too: "WXYZ-FM JAZZ 109.7." On another: "Drink Coca-Cola." On another: "Orioles 4, Blue Jays 2."

Or maybe you're just riding along in silence, unaware that a toxic-waste spill has tied up the interstate a few miles ahead. As if by magic, the radio turns itself on and tunes in a public-safety broadcast that warns you of the delay.

The humble radio, that most ubiquitous of consumer-electronic appliances, is about to enter a new age. Thanks to a technology called radio broadcast data system (RBDS), the next generation of portable radios, car stereos and home receivers may soon be able to perform a variety of "smart" tricks that could transform the conventional radio into a multifaceted wonder.

Progress toward in-band digital radio

IBOC AM and FM tests

By Skip Pizzi, technical editor

Acorn FM system details

The Acorn FM system test in New Orleans used the broadcast channel and audio program of WNOF-FM (89.9MHz). At the fixed digital receiver in the convention center (approximately eight air miles from the transmitter site), listeners could compare the FM signal to the digital, and view the combined signals on a spectrum analyzer. The digital signal sounded slightly better. More important, the digital and analog signals exhibited complete mutual non-interference.

A trip to WNOF's transmitter site revealed that despite earlier expectations for the IBOC system, the digital signal was not injected at the exciter, but was combined with the analog FM signal downstream of the transmitter. This means that the digital signal requires a transmitter of its own, albeit a small one. On the other hand, it also means that modification to an existing FM transmitter or exciter will not be required, and that more conventional RF combining hardware can be used to mix the signals downstream of the transmitters. Although less efficient from a power standpoint and more costly in conversion, this could simplify installation and add reliability and long-term flexibility. (The WNOF-FM test system literally was installed overnight.)

The need for a separate transmitter involves the Class C RF amplifiers used in

FM transmitters, which do not have sufficient linearity to adequately handle critical, wide-bandwidth digital signals. (This is similar to the issues faced in digital TV transmission — see "HDTV: Transmitter Requirements," August 1992.) A low-power Channel 6 TV transmitter was used for the WNOF installation. It provided more than adequate bandwidth and good linearity (running Class AB).

The actual RF combiner used in this system is a special case. Unlike typical combiners, the two combined signals here are at the same frequency, and they are at widely different power levels (approximately 1,000:1). In the New Orleans demonstration, the FM signal was 18kW TPO, while the digital transmitter output was approximately 350W. The combiner presented less than a 1dB loss to the FM signal, but a hefty 13dB loss to the digital signal. Thus, the digital signal's actual TPO out of the combiner was only about 18W. (ERPs were 50kW for FM and approximately 50W for digital.) An improved combiner design with reduced losses is possible.

"Hula" modulation

Another wrinkle in the Acorn FM system is the addition of more spectral redundancy. Instead of its previously announced 21-orthogonal carrier system, the format now employs 42 carriers, duplicating the same 21 carriers above and below the channel's center frequency in order to increase frequency diversity. Occupied bandwidth approaches 350kHz, which remains within the FM mask because of the digital carriers' power level of —35dB or lower relative to the FM carrier.

Furthermore, to combat the worst-case multipath condition known as *stoplight fade*, the 42 carriers are no longer at fixed positions within the channel. Rather, their center frequencies are continuously shift-

ing. The reference signal governing this carrier shift is simply the analog FM deviation. (The wiggling look of these shifting carriers on the spectrum analyzer gives rise to the name "hula" modulation.)

According to the designers, a few elements have yet to be added to the system that will further increase its robustness and resistance to multipath. Once complete, the system's multipath mitigation may rival that of much wider bandwidth formats, such as Eureka 147.

Acorn AM

The development of an IBOC AM system is about a year behind the FM system, according to USA Digital engineers. Therefore, the developer is less forthcoming with system details at present. Nevertheless, the on-air demonstration of its work in progress at Radio '92 was a significant milestone. Unlike the FM broadcast, the AM test was not on-channel with an existing AM station, but was contained on a standard AM channel (currently unoccupied) in the expanded band. It duplicated the signal of New Orleans AM station WNOF (1,060kHz) in digital form on 1,660kHz. WNOF's audio program was fed via a digital land line from the station's studios to the low-power, digital AM transmitter located on the roof of the convention center. Standard AM and digital receivers were available to compare the two signals.

Also unlike the FM system, the audio quality of the digital AM broadcast was much improved over the standard AM signal. The digital AM system's 15kHz stereo, 96dB S/N performance had the greatest industry resonance at these demonstrations, especially with regard to the potential market value of AM stations.

Broadcast Engineering -via Jerry Starr

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One potential offshoot of the technology may be the creation of ad-hoc programming and advertising networks, said Ken Springer, a digital communications engineer at the National Association of Broadcasters in Washington.

Because RBDS automatically passes listeners on to the same program no matter how far they travel, stations along the East Coast or in the Midwest could simulcast the same programs and jointly sell advertising time to regional sponsors, Springer said.

itive is an open question. It all depends on what [broadcasters] do with it."

Broadcasters appear to be slowly warming to the technology. About 30 radio stations nationwide, including Denbrook's Seattle station, have successfully sent RBDS broadcasts to the few thousand receiving units in use, said Gerald LeBow, president of Sage Alerting Systems Inc. The company makes the hardware that enables RBDS radios to receive emergency weather or hazard broadcasts even when they are switched off or are playing a cassette tape.

LeBow said the equipment that stations need to send RBDS broadcasts is relatively cheap—\$1,500 to \$4,500—and that broadcasters are pleased by the technology because it allows them to display their call letters and format, which can help listeners remember the station during ratings periods.

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Radio
Business
Report
-via
Tom
Bryant

The Washington Post
-via Dave Braun

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International DX Digest

Foreign DX Catches. Times are UTC; for ELT, subtract 5 hrs.

Once again I headed off to San Diego for two weeks of January vacation.

The continuous heavy rain (every single day I was there) and a bad sinus condition allowed me spend quite a bit of time at the dials. I decided to bring my Radio West Loop along this time, in my carry-on bag so it would not become lost luggage. Although I feared the airport security would see the PVC pipe, metal box, dial and battery and think "bomb!", no one even looked twice at it! I'm glad I brought it because I heard more than 30 new ones. Although my listening site is only two miles from Tijuana, the loop found nulls on the adjacent channels of most of these local stations. Sadly, I did not hear a thing from Hawaii, but lots from Mexico. Tim Hall - sorry I didn't have a chance to call, but perhaps you can help with my uniDs?

We welcome Mike Brooker to IDX. His envelope fooled me into thinking I was getting a QSL from Canada! As a feature this month, and as a special courtesy to Glenn Hauser, we include some of Don Moore's exotic harmonic loggings, but the real news is his TP receptions in Iowa!

Jim

PAN-AMERICAN DX

535 GRENADA R. Grenada, 1/6 0056-0109 - Talk by an American-sounding man until 0101, then a definite BWI man. Very weak and difficult to distinguish. First time I've had audio here, though frequent carriers. [DHM-IA]

540 MEXICO XEWA LA de la America Latina, Monterrey, 1/11 0353-0359 - Fair-to-poor with man talking in Spanish, Spanish music, more talk, trumpet music, man and woman talk just before the hour, QSB so no ID on the hour, under CBEF. [RSR-ON]

540 MEXICO XETEN Tijuana BCN, 1/16 0818 - I often noted this one off past local midnight. I don't know if this was normal for weekdays, or because of the heavy flooding in Tijuana. XEWA and KJQI heard during these times. [JR*CA]

555 ST. KITTS R. ZIZ, Basseterre, 12/14 0235-0245 - Very good in English with news items read by a man and a woman, musical interludes;

Jim Renfrew

61 Wilcox Street

Rochester, NY 14607-3832

amazing signal and separation from slop on new Hammarlund receiver. [RSR-ON]

600 COLOMBIA R. Libertad, Barranquilla, 12/28 0510 - Announcing Supermercado Robértico and a free trip to Mexico with expenses paid in contest to buyers, ID. [CO-DR]

620 UNID 12/30 0338 - Australian-accented commentator with play-by-play of the final day of Australia vs. West Indies test match (cricket). No IDs up to 0400, but very likely one of the West Indies stations on this frequency. SIO 242 with deep fades. [JB*NB] (I heard the same thing on 660 SLBS on 1/4 - Jim)

660 ST. LUCIA R. St. Lucia, Castries, 1/2 0155 - Heard lately very strong here, with greetings to listeners, announcing a bank in Castries, all in dollars (U. S.). It is so strong that it covers the usual station heard here: Ondas de los Médanos. More ads for "St. Lucia Corporate Bank, growing with St. Lucia for over 50 years". [CO-DR]

670 VENEZUELA R. Rumbos, Caracas, 12/29 0349 - News ("Rumbos Informe") with usual doorbell chimes and time checks between items. SIO 243. [JB*NB]

680 MEXICO R. Capital, Hermosillo SON, 1/16 0854 - Music weak under KNBR, but several times noted a singing ID "Capital, Capital, Capital" (from low note to high note), possible mention of ACIR net. [JR*CA]

700 JAMAICA JBC R. One, Montego Bay, 1/5 0203-0215 - Fair-good over/under WLW. Male DJ mentioned "JBC-FM", listed sponsors of program, live spot from remote location, music jingle into reggae music. [RSR-ON]

710.2 MEXICO UNID, 1/10 0307 - Noted most nights on the high side of KMPC, but never strong enough to hear an ID. [JR*CA]



740 CUBA CMJL Camagüey, 1/1 0700 - Fair with "R. Progreso Cadena Nacional" ID followed by Cuban National Anthem, then into R. Reloj program. 1992 lists two Cubans on 740 in Camagüey and Pinar del Rio - who knows and particularly cares, since they never give a legal ID anyhow. [MB-ON] (This far north it would be hard to get loop bearings accurate enough to distinguish between the two outlets which are on opposite ends of the country. However, if you happen to catch this shift to R. Reloj in the future, and you suspect multiple outlets are in use, listen carefully for a possible difference in the timing of the relay switch at each site - Jim)

740 UNID 1/4 0847-0856 - Nonstop ranchera music on top of frequency until sudden complete fade just before the hour. [DHM-IA]

750 VENEZUELA R. Caracas, 12/23 0329 - Ending program from R. Nacional de España, ID for R. Caracas, news by man, then faded under WSB, possible Venezuelan anthem heard at 0400. [MS*ON] 1/5 0055 - Fair to good in WSB null with several R. Caracas IDs and what sounded like news by man. [MS-ON] 12/29 0341 - "Programa del Mundo" with program from RNE about cosmology and mathematics, news from 0347. SIO 243. [JB*NB]

760 COLOMBIA RCN Barranquilla, 1/2 0311 - "RCN, las once y doce minutos", then Colombian news about guerillas. [CO-DR]

780 VENEZUELA R. Coro, 12/31 0411 - News Year's greetings then time check "12-11 en Radio Coro". SIO 343. [JB*NB] 1/5 0043 - Fair-to-good in WBBM null with pop music, announcements in Spanish by man, a very clear R. Coro ID at 0047. [MS-ON]

790 CUBA R. Reloj, Pinar del Rio, 1/1 0713 - Poor, fighting nulled pest CIGM with standard R. Reloj format of alternating male and female talk in Spanish, ticking clock and "R. Reloj" ID at top of each minute. [MB-ON]

800 NETHERLANDS PJB TWR, Bonaire, 12/23 0359 - Offer of study guide "Insight for Living" available from "Transworld Radio, Bonaire, Netherlands Antilles". [MS*ON]

810 MEXICO R. Alegría, Cd. Obregón, 1/9 0147 - Heard weak in KGO null with music and Alegría ID. [JR*CA]

820 VENEZUELA R. Guadalupe, Coro, 12/29 0334 - Christmas music, "Guadalupe" ID, ad for Zapateria Falcón. SIO 343. [JB*NB]

830 ST. KITTS R. Paradise, Basseterre, 1/5 0400 - Poor, mixed with WCCO in CHAM splatter with man and woman discussing Christian beliefs on Trinity Broadcasting Network // KTBN 7510 shortwave. [MS-ON]

840 CUBA CMHW Santa Clara, 12/18 0323-0337 - Good with male DJ speaking in Spanish, with vocals. Many mentions of Cuba, music jingles, ballads, clear ID under WHAS at 0330 as "Dóbleve", new. [RSR-ON]

850 COLOMBIA R. Recuerdos, Bogotá, 12/28 0532 - With Mexican rancheras, and an old corrido "Juan Charrasquedo". [CO-DR]

950 MEXICO unID, 1/20 0046-0200 - With XEKAM silent during my entire visit (but still listed in San Diego and LA newspapers), R. Amor was a regular with romantic music (lots of Vicente Fernández), but I noted another one this night fading in every four or five minutes with highly repetitive "lotería nacional" ads (e.g., not USA), and slogan ID as "Digital 95". Seemed to come in best on either edge of the loop bearing on R. Amor. Anyone have an idea about this one? [JR*CA]

1020t CUBA CMAP R. Guama, Bahia Honda, 12/18 0338-0400 - Fair with man in long Spanish commentary, music interludes, mentions of Cuba. Mundial Margarita also on at this time. No ID on hour because of QRM, so tentative. [RSR-ON]

1020 VENEZUELA R. Mundial Margarita, 12/29 0413 - Venezuelan dance music, hyper DJ. SIO 243. [JB*NB]

1030 MEXICO unID, 1/12 0155 - Briefly noted a weak Spanish signal under KTW. KURS slop made it difficult to hear much. Los Mochis? [JR*CA]

1090 ST. LUCIA R. Caraibes International, 12/29 0406 - French talk, accent and topics all definitely from France, then song by New Brunswicker Roch Voisine. SIO 322. 12/31 0435 - Contest involving winning a large number of "centimes", then news from Somalia. SIO 333. [JB*NB]

1100 ANTIGUA R. ZDK, 12/25 2227 - News from Caribbean. SIO 342 with deep fades, WWWV wiped it out a few minutes later. [JB*NB]



- 1110 PUERTO RICO R. Caguas, 1/2 0320 - ID after a beautiful song (could not get the title) then another melody; very good. [CO-DR]
- 1140 PUERTO RICO WQII San Juan, 1/2 0327 - Announcing free music by popular singers in different places of the metropolitan area, including fireworks at the Morro, Old San Juan. [CO-DR]
- 1160 BERMUDA VSB3 Hamilton, 12/29 0045 - BBC quiz program with questions about jazz // 6175 shortwave. SIO 322. [JB*NB]
- 1205 CAYMAN ISLANDS R. Caymans, 1/6 0103-0109 with romantic music, seemingly // 1555, but 1555 was very weak. Oddly, 1205 was better. [DHM-IA] (Oddly, because 1205 is lower power than 1555 - Jim)
- 1230 MEXICO Although my Sony is normally awash with images and harmonics at this location, the loop dealt them all a fatal blow. Even so, I noticed a weak Mexican station here every day, eventually realized that it was Tijuana 1310. My IRCA list shows an Ensenada station operating on 1230, which I have not previously heard. Is there possibly a Tijuana LMA here, or is it just an image? [JR*CA]
- 1250 COLOMBIA R. Capital, Bogotá, 1/4 0220 - Just with romantic songs and ID at 0220, then the signal changed and after a song a new station was heard IDing as "R. Reloj, Cúcuta", also with pop Colombian songs, all this just by local R. Visión QRM. [CO-DR]
- 1340 MEXICO R. Idolos, Mexicali BCN, 1/10 0252 - The mesa behind my in-law's house blocks Mexicali, but I finally dredged this one up with the help of the loop; lots of Mexicali ads, IDs, heavy bass music. [JR*CA]
- 1400 COLOMBIA RCN Santa Bárbara, 1/4 0230 - Many IDs as RCN during the transmission of the "Reinado Internacional del Café" (International Coffee Pageant), with girls from different countries, held at Manizales. [CO-DR]
- 1410 PUERTO RICO WRSS San Sebastián, 1/4 0254 - Many ads for Farmacia San Sebastián, Supermercado El Rey, Disco Centro and Ron Bacardí. Many, many more ads with ID as "WRSS-14-10, San Sebastián"; good. [CO-DR]
- 1430 PUERTO RICO R. Tiempo, Caguas, 1/4 0300 - With Puerto Rican Christmas music, plenas, etc. ID at 0300. [CO-DR]



- 1540 MEXICO La Poderosa, Hermosillo SON, 1/13 0139 - With ads, ID, music and talk in KZLA null. [JR*CA]
- 1580 MEXICO XEDM La Grande de Sonora SON, 1/12 0030 - Heard loud and clear over KBLA and Arizona with slogan ID. Often heard in Rochester. [JR*CA]
- 1590 MEXICO XEHC R. Bahia, Ensenada 1/7 1942 - Finally heard with call letter ID, KBBY nulled. [JR*CA]

TRANSPACIFIC DX

- 1620 AUSTRALIA UNID, 12/31 1055-1102 - Man in Aussie-accented English, but only occasional words and phrases came through. Still in poorly at 1151. Carrier only on 1629. [DHM-IA]

TRANS-ATLANTIC DX

- 1026 SPAIN R. Asturias, Oviedo, 1/9 0620 - Into local program with R. Asturias ID, local newsm ads and weather. Back to the SER net program at 0630. SIO 332. [JB-NF]
- 1107 SPAIN RNE R. 5, Santander, 1/5 1936-2001 - Mixing with other RNE stations with music program, instrumental versions of Beatles tune as music bridges, heard a number of "R. Nacional de España en Cantabria" IDs. Full network ID and news at 2000. SIO 322. [JB-NF]
- 1152 SPAIN RNE R. 5, Zamora, 1/7 1929-2000 - Mixing with another UNIDed RNE station, serious panel discussion until regional ID (Castilla y Leon) at 1956, music, full net news at 2000. SIO 332. [JB-NF]
- 1305 SPAIN RNE R. 5, Orense, 1/8 1936-2000 - Panel discussion about Galician problems, "Noticias de Galicia" at 1955, full net news at 2000. SIO 333. [JB-NF]
- 1314 SPAIN RNE R. 5, Salamanca or Valladolid, 1/6 1918-2000 - Dominant station with regional program, rather boring discussion with regional IDs "R. Nacional de España en Castilla y Leon", full network news at 2000. SIO 243. The most recent list by Jordi Brunet still lists this as Valladolid, but I've seen reports that Valladolid is now on 936 kHz and Salamanca is now here, ex-1413 kHz! As I'm not hearing a strong station on 1413 anymore, I favor Salamanca as the more likely. [JB-NF] (I have nothing else to add - Jim)

- 1413 SPAIN RNE R. 5, Jaén, 1/5 1931 - Weak Spanish talk, timecheck and promo for a program on "R. Nacional de España, Andalucía" then just snatches of audio. Lucky to get this! SIO 242-1. [JB-NF]

- 1485 SPAIN R. Santander, 1/10 2031-2102 - Weak and fading, but caught parts of the local sports, mainly football scores and reports on local games; "R. Santander" ID at 2032 was muddy but I'm pretty sure, another less clear one at 2058. Pips and SER net news at 2100. SIO 232. [JB-NF]

Jean speaks: I've had some fun this week monitoring the RNE Radio 5 synchro frequencies during sunset fade-in. The stations are in the end of their regional programs. As there is nearly always only one station per region on any given frequency, one can ascertain which station one is receiving.

QSL INFORMATION

DOMINICAN REPUBLIC: R. Cima 100, Santo Domingo, 4960v, not shortwave, but they just sent me a QSL response that makes it all worthwhile: personal letter from the owner Roberto Vargas, a banner, a full-data QSL print-out based upon my own prepared card, a 100 minute cassette tape of "Merengues Tradicionales", a postcard of "Faro a Colón", an uncirculated half-peso coin, and stamps on the cover - all commemorating the quincentenary of Columbus. [JR-NY]

VENEZUELA: Ecos del Torbes 780 responded in ten weeks with a nice letter and a correctly filled out prepared card, v/s Iván Escobar S., Depto Técnico, Calle 9, No. 8-16, San Cristóbal, Edo. Tachira, for 2 IRCs. Letter says they get lots of verification requests for shortwave, but that mine is the first for medium wave (which I doubt!). [JR-NY]

STATION NEWS

BOSNIA & HERCEGOVINA: A shortwave transmission of R. Bosnia Hercegovina's medium wave program on 612 kHz is being heard on 6219.9 from about 2200-0500. In fact, I'm listening to a very interesting blend of Balkan-style music as I type this. I'm not sure where the transmitter is located. [JR-NY]

CROATIA: Hrvatska R. uses the following MW frequencies: 1134, 594 in Osijek, 774 in Split and 1125 in Deanovec. Reception reports are welcomed to: HRP Transmitters & Links, Radnicka 22, 41000 Zagreb. [MN/DXF via DSWCI in ARC 12/30/92]

CZECH REPUBLIC: Here is what I heard on 7345 kHz, 1/24 at 0400: "This is Radio Prague from the Czech Republic". [JR-NY]

INDIA: AIR 1053 has started transmissions for the Indian peace-keeping forces in Shri Lanka. The transmitter is

located at Tuticorin on the southern tip of India. Power is 200 kW, daily programs 18 hours a day (to be increased later). [Media Network via BE in ARC 12/30/92]

LITHUANIA: Due to power shortage the 666 transmitter at Sitūnai will be off air 2300-0400. [Media Network via BE in ARC 12/30/92]

MEXICO: XEW 900 La Voz de la America Latina is celebrating its 62nd anniversary with a new transmitter, power in the range of 100-150 kW. [IRCA in ARC 12/18/92]

NETHERLANDS ANTILLES: MW will continue on MW 800 kHz even though SW service will be terminated in July in favor of satellite feeds to hundreds of AM and FM stations in South America. [Bonaire Wavelengths in Monitoring Times 1/93]

PHILIPPINES: 1143/1147.5 VOA Poro heard on both frequencies, at 0900 UTC on 1143 and at 1400 on 1147.5 kHz. Apparently the station moves around to avoid QRM. [Chris Boehnke via IRCA DX Monitor #969 in ARC 12/20/92]

SPAIN: Be ready to catch the historical change of the frequencies of the Barcelona stations, expected to be the first week of January: R. Barcelona 666 (from 828), Onda Cero 828 (from 621), R. Miramar 963 or 954 or 936 (from 666), R. 5 576 (to be confirmed). [Jordi Brunet in Play-DX 722]

CONTRIBUTORS

- [JR*CA] Jim Renfrew, San Diego CA; Sony ICF 2010, Radio West Loop.
- [RSR-ON] Robert Ross, London ON; Collins 651S-1, Hammarlund SP600, dipoles, longwires, vertical, 2.5' box loop.
- [MB-ON] Mike Brooker, Toronto ON; Panasonic RF-2200, Sony ICF-7600D.
- [DM-IA] Don Moore, Davenport IA; R-5000, ICF-2010, 400' mini-beverage, 150' L, Radio West ferrite loop.
- [MS-ON] Morris Sorenson, Scarborough ON; Hammarlund HQ-150 with McKay-Dymek DA-9 ferrite loop or Panasonic RF-B65 with built-in antenna.
- [MS*ON] Morris Sorenson, Kempville ON; Panasonic RF-B65 with built-in antenna.
- [CO-DR] César Objío, Santo Domingo, Dominican Republic; TRF Realistic, Realistic D-400 (digital), 4' loop.
- [JB-NF] Jean Burnell, St. John's NF; Icom IC-R71A with 12m attic wire.
- [JB*NB] Jean Burnell, Fredericton NB; DX-440, with built-in antenna.

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DXpedition Site Selection ... by Shawn Axelrod

INTRODUCTION

The first question you ask is "Why go on a DXpedition?". There are three good reasons that come to mind immediately:

1. Fun
2. New stations
3. More new stations

Yes, number one is fun! If you really want to enjoy this hobby to its fullest, I can heartily recommend going out anywhere with a group (two can be a group), sharing knowledge, experiences and just having a great old time DX'ing. Think of a DXpedition as a chance to gain knowledge, try out some new ideas and really get to know fellow DX'ers. You won't be disappointed.

As for numbers two and three, I can guarantee you that your ears will be filled with new, unusual and most often rare DX. Getting away from the noise of an urban area and having the space to put out antennas up to 2000 feet will do wonders for your 'stations heard' list. A DXpedition, in my opinion, is the best of all

DX'ing experiences.

This article will cover all aspects of DXpedition site selection based on my personal experiences in western Canada. Now, I realize that this cannot cover every eventuality you may run into, but it will give you a good base to start at. You can custom-tailor these ideas to fit your situation. I have tried to cover every aspect of a DXpedition site selection possible, but no one article is perfect, so you will forgive any omissions you come across. Now let's get at it so that you can go out and get some new DX.

THE SELECTION PROCESS

The very first thing you must decide on, once you have gotten the DXpedition bug, is where to go.

A. Distance

The very first thing you must do is get a map of your area. Take a look at it and see where some potential sites might be located. As you will see later on, not all sites on the map will be good sites to DX from. Before you select some sites to look over, decide now far you want to travel. Here in Winnipeg, we are very fortunate to have some great sites within 1 to 12 hours' drive. I have driven 32 hours to sites, on occasion, but this can prove a bit much for short, one-day DXpeditions. Of course, you could get going at 6:00 a.m. and be there early, but close sites are preferable whenever possible.

Once you have selected a site or two on the map, you will have to go out and look them

over. Several things must be considered when looking at a site.

B. Accessibility

A big question is how easy it is to get to. If a site looks great, but you need a four-wheel-drive vehicle to get in and your Honda Civic says to you "Who are you kidding?", a change of site will be necessary. By the way, consider what the weather will do to your site. One of my favourite sites is great when it is dry, but a group of us showed up after a heavy spell of rain and we ended up carrying all of our gear in mud and water that was up to mid-calf in places. A body can be a bit sore after three trips across 1,200 feet of mud, especially carrying 50-pound batteries. We laugh about it now, but it was a long haul at the time.

Snow can also change things a bit. In order to get to another DX site, we had to place plywood across a ditch because the road to access the trailer was drifted in. The good news was that the lake was frozen solid and we could lay wires toward Europe right on the lake. You cannot do that in the summer, so the site has different uses, based on the weather and the time of year.

C. Power

If you intend to use AC power, you will have to make sure that your site has power, and enough of it to be used by the whole group. A cabin or hunting lodge out of town may seem perfect, but if there is no AC power, you will have to supply your own. When at sites with no AC power, we use 12 volt batteries. Gel Cells or Marine batteries have proven best as they can be recharged many times without damage. Gas-powered generators are heavy and expensive and often great noise creators in the way of static noise on your rig. The idea is to get away from noise, not to generate it. Just remember that generators and batteries are heavy; you don't want to carry them too far. Also, no AC power means creating your own lighting via lanterns, propane, etc. You don't want to sit in the dark. All of my equipment can now be battery-operated, but please bring extras as batteries will wear down and you will have to stop DX'ing if you run out of power!

D. Antennas

Now, can you put out the antennas you want at your selected site? Dense bush or forest can be a real pain to walk through while putting out antennas in anything resembling a straight line. Open spaces or at least a few trees is best for running long beverages out. Also, when at your site, use a compass to see which way is which. You may not be familiar with the directions at a new site. We once found a great site, but if you

wanted to go north, you had thick bush and in the east, there was a lake (it was May and there was no ice, so it was a no-go). We did decide to use it, but restricted our beverage set-ups to west and south. It worked out fine, but we knew beforehand that Trans Atlantic DX on Medium Wave was out, so walk out where you want to put your antennas to check for obstructions of any kind - natural or man-made.

E. Privacy

Some sites are more private than others. If somebody in your group knows a relative with a farm or a large piece of land that you can use, Great! Go for it! This should mean nobody else will be there to bother you or your antennas. If you are using public space such as a park or campground, you will have company. The sight of people putting up wires all over the place will attract the curious like bees to flowers. Most people will ask a few questions, then leave. Unfortunately, their vehicles may snag wire and drag it off.

This happened to us once at a campground, where we had "the" washroom. It was great for us, but a group of partiers decided to use the washroom and snagged 800 feet of wire with their car. It just disappeared out of the tent and went down the road. We found most of it the next morning.

Also, in public areas, be careful putting antennas across access roads. This can be done if necessary by burying the antenna wire with dirt, stones or snow. I once lost 500 feet of wire and almost lost my ICOM R-70 when a snowplough came down the road. It caught my antenna and started to pull on it. The R-70 started to move and I grabbed it just as it got to the edge of the table and the antenna broke. I saved the R-70, but lost the wire in the snow bank the plough created.

Over the years, cars, snowploughs, skidoos, farm tractors and other vehicles have been at the end of my antennas, so be careful with your site selection. Ask fellow DX'ers if friends or family out in the country would like weekend guests. This can prove to be the best situation.

F. Camping

Some sites don't avail themselves to a permanent structure such as a farmhouse or cabin. You now have two alternatives - a) tents or b) trailers. Tents are great if you can get big ones that will fit 3 or 4 people and all their equipment, tables, chairs, etc. I've done this a few times and had great fun. Make sure your site is on high ground in case of rain. A tent sitting in a hollow in the rain is no fun. Trust me on this one! If you are using tents, make sure they are waterproof. A heavy morning dew can make a tent uncomfortable. Also, tents need to be heated, so bring along

heaters, safe to use in a flammable tent. I've safely used propane many times.

Trailers are great as long as they are truly large enough for your equipment and friends. Try them out at home all set up to DX before you go out with 4 people and find out that there is only room for 3 of you, comfortably. (This goes for tents too.) Put it up, set up tables and chairs, etc. to see how things will go best.

G. Weather

As the Boy Scouts say, "Be Prepared". The weather can change quickly and cause all sorts of problems. If you are tenting or using a trailer, bring warm clothes. Nights can get cool and you want to be warm. Bring clothes and footwear for situations that can arise. DX'ing in the mountains can be fun and the view beautiful, but if you wake up after a brief nap (you will want to stay up as much as possible, but ...), and find out that it is snowing and all you have is a light jacket and running shoes, you will be cool and wet. Listen to a local radio station every so often to keep up with the weather so that you won't be surprised by a storm or rapid temperature change. Also, that little stream in the field can flood, or a lake come up and wash out an area. Survey your site well beforehand to see what can happen. Also, in tornado country, see if a safe spot is available in case of emergency. You can replace equipment, but not friends. Avoid setting up beside large trees that can be lightning rods or fall on you. This can hurt!

H. Facilities

Does your site have water, bathroom and cooking facilities? You may have to bring your own water if no supply is available. The amount you use will differ depending on weather and what you plan to eat. Instant coffee, tea or hot chocolate will be pretty dry if you have no water. You can also get pretty dirty out in the wide open spaces. You'll need water to wash and brush with, too. Sooner or later, and probably sooner, you'll need to go to the little house, so make sure there is one. If not, you can always make do. Just remember, though, using the bush can have its drawbacks such as:

- 1) Mosquitos and other bugs might bite where you might not want to be bit.
- 2) You will learn to go faster and, yes, less often when it is 10° or 20° below zero outside.
- 3) At night, you and your fellow DX'ers may not be alone in the country; animals or hunters can be a major problem if your pants are around your knees!
- 4) I still have a DX'ing buddy who cannot, to this day, figure out how you flush a tree!

Also, if camping, is there a place to cook your meals? If not, you'll have to bring a

campstove or eat cold meals (not recommended). You will also have to supply your lighting as most rigs don't light up a tent trailer or cabin if no AC power is available.

Finally, garbage. Yes, you will generate garbage. If no facilities are available, you may have to take it home with you. Bring bags to store and/or haul garbage as you produce it. Firepits or barbecues can get rid of a lot of leftovers, but not everything. Check the local rules for fires. Getting arrested or fined can ruin a DXpedition.

I. Other Factors

Now that you have selected your perfect site, take a good look around where you are going to be. No, I don't mean the actual site itself; you have done that if you did "A" through "H". I mean look around your site to see what lies just outside its boundaries. What is on the other side of those trees? Ooops, it's a Hydro sub-station or a large plant that will give you interference on the radio. In fact, as you walk about your site, have a portable radio set on a dead frequency to see if you are getting interference from nearby facilities. You may also wish to consider the direction from home that you want to go. Here in Winnipeg, almost all BCB stations are on the south side of the city and beam northwest at night to protect USA stations. A DXpedition to the east or south makes locals much easier to null.

Check your local pests to see which way

might be best to go. Also of importance is where your local stations' transmitting facilities are. Trust me again when I say that you don't want to aim 1 500 feet of wire at a 50 000 watt, local Overload city!! If you are using a trailer covered in sheet metal and you plan to use loop antennas, will they work inside? Try them at home first to see if you can use loops in the trailer before you drive out of town for 1 or 2 hours.

If you are using public campgrounds, etc., make sure the local authorities give you written permission to use the site. Explain fully what you intend to do, how many will attend, how long you will stay, etc. This will make life easier. At a provincial park, we had such good cooperation from the park authorities; we got a private site and the road was closed off for us to keep it private.

You may want to make up a map of the DX site. This can be used to plan out where to put the tent, where antennas will go so that they are aimed at your target areas and just plain save time when you get there. Remember to arrive early so that you can be all ready to go when the DX starts to roll in. By the way, you will be surprised how much earlier it rolls in on a DXpedition compared to at home in the city. Well, it may seem like a big deal and a lot of detail, but it is worth it in the end. Start looking around now, because the DX is out there just waiting for you!

The Answer Man

"No Question Is A Dumb Question"

Answers to members' questions, from the basic to the technical

Hello again! This edition of Answerman is delayed as a result of a lack of material as well as a lack of time to put it together, thanks to some very heavy workload. I urge you to keep your questions coming in, as this column cannot continue to exist as it has the past few years without your contributions!

QUESTION: I have a Sangean ATS-818CS digital tuning receiver, which I wish to use with an external antenna for AM. I have tried various longwires, hooking them up with the adaptor provided. This works so-so for SW, but the signal cuts out almost completely on AM. The manual says almost nothing about antenna connections. Help?

ANSWER: This question sounds very familiar, although the make of receiver doesn't. I wonder if this is the same receiver manufactured under another name? Can

anyone help on this one?

QUESTION: I have tried to purchase old-fashioned lightning arrestors, as well as the ceramic insulators, but without success. Neither Radio Shack nor Motorola can help. Where can I obtain these items?

ANSWER: The best source for such things would be a radio store more oriented toward amateur communications. Another good source would be amateur "flea markets". A third source to try might be Antique Electronic Supply, 688 W. First St., Tempe, AZ 85281 [(602)-894-9503]

QUESTION: I need some assistance in building the NRC FET Altazimuth Loop antenna. I cannot obtain the necessary parts in Northern Canada where I am located. Does anyone still offer this to members as a

completed unit? Or can anyone help me with the parts, particularly for the amplifier?

ANSWER: I suspect that most of the parts may be available via mail order, although probably from several (not one) sources. Since these plans were initially published over 20 years ago, some of the parts specified are simply no longer available, and must be substituted. To date, no one has undertaken to update the plans. Can anyone help on this?

COMMENTS: Two readers responded to my answer in a prior column regarding the Interceptor line of loop antennas. One called

me to task for not noting that these antennas are primarily made for locating interference sources, and not for DX'ing, and, that when used for that purpose, they are both productive and reasonably priced. The other notes that the manufacturer has recently revised the line to allow for four different plug in "heads": 0.2-0.54 mHz., .54-1.6 mHz., 1.6-5.0 mHz., and 5.0-15.0 mHz.

Both comments are probably on target, each from a different direction.

That's it for now! Next column will be as soon as I have adequate material to run it, give or take a little to cover conflicts with work, hi. 73's

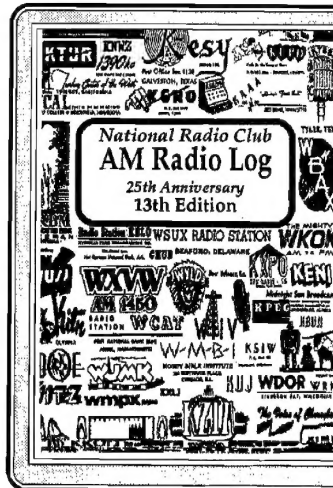
DID YOU KNOW that the loop antenna in your portable radio can be used to null electrical interference as well interfering radio stations? You should operate your radio on batteries to test this; disconnect and move it away from the electric power cord. You can also "snoop" sources of electrical interference this way.

DID YOU KNOW that the FCC ran out of 3-letter and 4-letter call signs as early as the mid-1930s? Broadcasters shared those combinations with ships, coast stations and police radio operations. Now only broadcast and maritime stations use them.



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Musings

of the Members

Dave Schmidt
P. O. Box 11502
Wilmington, DE 19850-1502

Times are local per Muse; submit double-spaced only.

Thoughts from NRC members ... the opinions expressed in this column are those of the individual writer and do not necessarily reflect those of the editors, publishers, or the National Radio Club, Inc.

BRUCE REYNOLDS - 1617 CORTE DE MEDEA - SAN JOSE, CA 95124

----- DX hasn't exactly been rolling in but I have continued to take advantage of the absence of KEEN-1370, added needed KOHU-1360, KPCO-1370 and KSMJ-1380. The latter is really tough to hear here, but I finally got them at 12:40AM on 1/11 thru KTOM. I also finally got a decent taped ID from KXIX-930. This one is audible on good days here, but always down in the mud. What a great QTH they have for a religious station! KAPS-660 was heard with CW, in/out with CFFR in the null of KTNN around 11:45PM on 1/10. On 1/11 the KDES-920 DX TEST was heard well with oldies and code/voice IDs thru KLOC/KOLO and a station with Larry King, presumably KKLY. KANR-1340 is becoming something of a regular here, in before 4PM on 1/9! Other miscellany: the absence of KEEN has revealed a daytime spur from KSJX-1500 on 1360. I also have one from KLIV-1590 on 1410 and a het on 1240 caused by a nearby KLOK-1170 spur. Contrary to the log, KBIF-900 is not primarily Spanish, although I believe they do have some foreign language programming. Mainly they have a mixture of religion (mornings) and talk, including sports talk. Another slight log correction: per sign off announcement (noted at five past midnight local with SSB on 1/4) KNCO-830 signs on at 5AM local time Mon-Fri and at 6AM on the weekends. A verie was received from KICY and a well-intentioned non-verie from KBBI. Not only was there no verification statement, but they got the date wrong, too! 73

DON MOORE - 11434 140th STREET - DAVENPORT, IA 52804-9538

----- I'll start out this with a plug for another publication, BLANDX. BLANDX is an annual parody of the NASWA shortwave club bulletin which I put out every year. Edition #7 came out in Sept. From the comments I receive with each years reorders, it must be pretty good. It's even developed a bit of a cult following in SW circles. Although it is a parody of SW, anyone who is into radio, especially international DXing, can appreciate it. BLANDX is 36 pages long and just \$2, postage paid in N America, \$3 or 8 IRC's elsewhere, from the above address. All copies are mailed in a sealed brown envelope for your protection! I was planning to make the convention in Omaha but had to cancel at the last minute. We were suppose to buy and move into our new home two weekends before the convention but due to some screw-ups by the other party, it was delayed a week, which left me with too much to do on Labor Day weekend to justify taking off. I am curious to know if there is any official NRC policy, or any accepted MW DXer policy, regarding the logging of MW harmonics on the SW frequencies. Specifically, can, for example, the logging of a 1100kHz Columbia on 2200kHz, 2nd harmonic, be counted as a MW station logged? SW club policies say that such loggings are not SWBC and can not be counted with SW stations heard. It seems like they should count somewhere, and I'm trying to figure out where!

BRUCE WINKLEMAN (AA5CO) - 3014 W 68th PLACE - TULSA, OK 74132-1762

----- Time to look back at DX in 1992. Jan. 92 marked the return to BCB DX with the purchase of a amplified ferrite bar antenna from Ralph Sanserino to be used with the R390A. Many years ago, I used an SMI with the HQ180A for BCB DX and enjoyed many pleasurable hours of DXing. I am convinced that a directional loop is the 'only way to go' as far as serious BCB DX is concerned. The Sanserino loop has served me well for 6 months with the 1st new logging being KNBR-680. Since then, 45 new stations have been added to the log in 92 in very limited DXing sessions with 3 new ones added in the 1st 8 days of 1993. July 92 saw the purchase of a Quantum Loop from GERRY THOMAS. To put it very simply, I am very pleased with its performance and would recommend it to any NRC member considering purchasing a compact directional antenna for BCB DX. The DX highlight of 92 has to be the 12/11 reception of KMJ-580 (my 1st 5000 watt CA in the log). A report is still outstanding. Some semi-local radio news: KXTD-1530 is back on the air // WWLS-640. KXVQ-1500 is off the air for an indefinite period of time due to a fire in the hotel that housed the stations studios. A phone call to the station revealed that they expect to return to the air soon as the insurance claim is settled and they can build a new studio. The situation is complicated by the fact that a fatality was involved in the fire in early Dec. Local news reports said that 'a transient died on the fire' but the owner of KXVQ said a '6#@##% drunk set himself on fire!' As soon as the investigation into the fatality is completed and the insurance claim settled a new studio will be built. KXVQ will be off the air for some time! Recent new ones for the log here: 12/22 WEXR-1140, 12/31 KTTR-1490, 1/6 KBIS-1010, 1/8 WBBC-1070 & KWOS-1240. Hope all NRC members have a DX filled 1993! 73

----- We've told the story of the dog who went to broadcasting school to learn to bark on cue but when he got a job, he also wanted to change his name! Now tell us of your DX doings each week or your own radio adventures right here in MUSINGS!

MORRIS SORENSON - 29 JANET BLVD. - SCARBOROUGH, ON M1R 1H7

----- I believe there is an upcoming issue devoted to those of us who use tube receivers. If so, I hope this report makes it as my pride and joy is still my Hammerlund HQ150 which I purchased used back in the 70's. I inherited my love for these sets from my father, a former radio technician who always had some kind of tube set down in the basement when I was growing up. Today, along with the Hammerlund, I have an Echophone ECL, a small collection of consumer type tube radios and a Hallicrafters SX62 which is in need of repair. DX has been pretty slow here this year. At least CIAO finally vacated 790kHz, opening that channel up for a few loggings. Much of my DXing has been done while visiting my Dad in Kemptville, ON near Ottawa. Up there, I use a Panasonic RFB65 portable, as the HQ150 is a little big to carry around, especially when one travels by bus or train! Scarborough has one town DXer these days as my friend DON TRELFORE and his family have moved to Jamaica. All the best, DON & enjoy yourself on the beach while we're digging out from another snowstorm up here! 73

CURN CHADWICK (W0CCH) - 3014 S 104th AVE. - OMAHA, NE 68124-2507

----- Shadow of ERNIE WESOLOWSKI's "Big O Team", they're alive & meeting! We met BOB MCCOY & NEIL ZANK for lunch at Lincoln, NE, MIKE HAWK & CARL MANN were unable to attend, however DAN BARTEK & LONNIE MERRITT were there. We discussed plans for his DXpedition 1/23 near Fremont, NE the opportunity to hook up a 400' longwire. I called GEORGE SHERMAN in MN and got a lot of information on beacons, frequencies and how to hunt them. My best beacon DX so far is in Galveston, TX. Have also been having luck with AM DX lately, logging WIAC-1510, KGHT-880 & KGHZ-790. We have been having excellent DX conditions and its ruining my sleep! 73

BEN DANGERFIELD - 202 GOVERNORS DRIVE WALLINGFORD, PA 19086

----- It was interesting to note you're back at WVCH-740 doing work as I was thinking of them the other day while wondering if they were really only using 5 watts at night! The nighttime signal here is extremely good and without CBL except when looping. Of course, the transmitter is only about 2 miles distant as the crow flies. WURD-900 (less than 10 miles) is much worse with their 42 watts at night and WJBR-1290 (about 15 miles) is terrible with their 32 nighttime watts. And WPCR-1540 (about 20 miles) cannot be heard nights with their 7 watts, if indeed they are on the air at all during the evening (at least till 9, Ben-DWS). I know that in the morning they pop up out of nowhere at exactly sunrise. Another Philly station that disappears at night is WDAS-1480 (about 20 miles) but that is the change from day to night pattern. On 1/15 they were apparently using their night pattern all day long as the signal was way down and buried at times in the mid-day period by WSHP. Perhaps someone forgot to pull the switch? I'm enjoying the new WWJZ-640 with their nostalgia records, trading on the old WJZ call letters. Back in the early days of radio, WJZ-New York was very popular here in the Philadelphia area. WWJZ is fine during the daytime hours, but drops way down at night. Yesterday I heard them say they were going to make some adjustments that would improve their signal in the fringe areas. Can they do this? I also listen to the new WORW at night, another move toward my generation, and if you want to know what radio music sounded like in the 20's and the 30's (when I was starting to DX), tune to 1560 on Sunday evening between 8-11PM. I also listen to WNYC-820 on Sat. afternoons and sometimes WEVD-1050 at night. More old records! Most of my DX time is spent tracking TA's in the evening, but I do some tuning in the daytime hours, and perhaps the most interesting reception was during the big mid Dec. storm when I logged WSYB-1380 on top of the frequency as late as 11:30AM. Several other New Englanders were heard throughout the day and WWAZ-790 was strong atop their frequency in mid afternoon. The TA's have been fairly consistent with some interesting loggings such as Bulgaria on 1224 & 1161 and Kaliningrad on 1386 back on 12/7, Germany on 1593 like a local on 1/11 and Azores-693 on 1/19. Tracking TA's is great fun and I will be happy to talk about TA DXing at the ANARC meeting on 2/19. A trip to Ft. Myers, FL this week for 10-12 days then will be travelling to London & Paris for a week each between 3/23 & 4/7, as previously mentioned. Hope to see you at the ANARC meeting!

DAVE SCHMIDT - P O BOX 11502 - WILMINGTON, DE 19850

-----As BEN mentioned above, this years ANARC convention is featuring an open forum on TA DXing. This will be on Friday 2/19 and should be of great interest to those who attend. Look for the NRC table, you'll likely find me there hiding behind a display! Since I haven't heard to many DX TESTS this year, I'm going to run one in conjunction with some work at WVCH-740 on 3/8 2-3:30AM. We will run a portion of it on 5 watts, also. My test sidekick, Audio Service member PAT CASSIDY will also be there to help out. That's it, keep those MUSINGS coming and CUN7! 73's Dave

DID YOU KNOW that if a radio station were to only broadcast on its assigned "carrier frequency" (ie., WLS is assigned to 890 kHz), you would hear nothing from that station? All of the audio you listen to from a station is broadcast on its "sidebands" -- some AM stations cover over 20,000 Hertz of radio spectrum when broadcasting with good quality.